[0137] Embodiments of the present invention provide advantage in that they may enable a high quality image to be recorded irrespective of whether another electronic component of the apparatus **10** (the transmitter **18** for example) requires a relatively high output current from the electrical energy storage device **22**.

[0138] For example, if the ambient light intensity is relatively high, the processor **12** operates according to the mode illustrated in FIG. **5**A and the flash unit **28** may draw a relatively low current from the electrical energy storage device **22** since only low illumination may be required. If another electronic component requires current, the electrical energy storage device **22** is able to provide current to both the flash unit **28** and the other electronic component simultaneously without affecting the quality of the image recorded by the image sensor array **26**.

[0139] If the ambient light intensity is relatively low, the processor **12** operates according to the mode illustrated in FIG. **5**B and the flash unit **28** may draw a relatively high current from the electrical energy storage device **22** since greater illumination may be required. If another electronic component requires current, the electrical energy storage device **22** may alter or interrupt the current being provided to the flash unit **28** without affecting the quality of the image recorded by the image sensor array **26** since each of the image sensor rows experiences the same light provided by the flash unit **28**.

[0140] The blocks illustrated in the FIGS. **4** and **6** may represent steps in a method and/or sections of code in the computer program **34**. The illustration of a particular order to the blocks does not necessarily imply that there is a required or preferred order for the blocks and the order and arrangement of the block may be varied. Furthermore, it may be possible for some steps to be omitted.

[0141] Although embodiments of the present invention have been described in the preceding paragraphs with reference to various examples, it should be appreciated that modifications to the examples given can be made without departing from the scope of the invention as claimed. For example, the processor **12** may represent a plurality of processors that carry out portions of the above described methods. In one embodiment, the camera module **23** may comprise a processor (which may be part of an image sensor) and the apparatus **10** may comprise a central processor. In this example, the camera module processor may control the operation of the flash unit **28** as illustrated in FIG. **2** until synchronization with a transmission signal is required. When transmission synchronization is required, the central processor of the apparatus **10** may take over control of the flash unit **28** and control the flash unit **28** as illustrated in FIG. **3**.

[0142] In block **48** of FIG. **4**, the information may alternatively be indicative that an audio power amplifier requires a high current. The information may include data for the operation of the audio power amplifier and the moment of time for the first instance of amplification. The processor **12** may use this information to synchronize the operation of the flash unit **28** and the audio power amplifier so that they alternately draw a maximum current from the electrical energy storage device **22**.

[0143] FIG. **7** illustrates a schematic diagram of another apparatus **10** according to various embodiments of the present invention. The apparatus **10** illustrated in FIG. **7** is similar to the apparatus illustrated in FIG. **1** and where the features are similar, the same reference numerals are used.

[0144] The apparatus **10** illustrated in FIG. **7** additionally includes a 'super capacitor' **70** (which may also be referred to as a 'Supercap', an electric double-layer capacitor, an electrochemical double layer capacitor (EDLC) or an ultra capacitor) that is configured to provide electrical energy to the flash unit **28**. Super capacitors are well known in the art of electronics and will not be described in detail here.

[0145] Embodiments of the invention as illustrated in FIG. **7** provide an advantage in that they may increase the current provided to the flash unit **28** and consequently increase the light intensity that may be provided by the flash unit **28**. By way of example and with reference to FIGS. **2** and **3**, if the Supercap **70** is configured to be able to provide a current I_5, the current received by the flash unit **28** in the first portion T_2 would be $I=I_2+I_5-I_1$ and the current received by the flash unit **28** in the second portion T_3 would be $I=I_3+I_5-I_1$.

[0146] Since the flash unit **28** receives current from both the electrical energy storage device **22** and the Supercap **70**, a manufacturer may be able to reduce the current required from the Supercap **70** and consequently reduce the size of the Supercap **70** in the apparatus **10**. This may also advantageously enable the manufacturer to reduce the size of the apparatus **10**.

[0147] Features described in the preceding description may be used in combinations other than the combinations explicitly described.

[0148] Although functions have been described with reference to certain features, those functions may be performable by other features whether described or not.

[0149] Although features have been described with reference to certain embodiments, those features may also be present in other embodiments whether described or not.

[0150] Whilst endeavoring in the foregoing specification to draw attention to those features of the invention believed to be of particular importance it should be understood that the Applicant claims protection in respect of any patentable feature or combination of features hereinbefore referred to and/or shown in the drawings whether or not particular emphasis has been placed thereon.

I/We claim:

1-21. (canceled)

22. An apparatus comprising:

a processor configured to control a flash unit to provide light over a time period common to exposure time periods of a plurality of rows of image sensor elements of a rolling shutter image sensor array.

23. An apparatus as claimed in claim **22**, wherein the processor is configured to determine whether the intensity of ambient light is below a threshold light intensity and to control the flash unit to provide the light over the time period if the intensity of ambient light is below the threshold light intensity.

24. An apparatus as claimed in claim **23**, wherein the processor is configured to determine whether the intensity of ambient light is above the threshold light intensity and to control the flash unit to provide light over a time period that is substantially equal to the exposure time of all the sensor elements of the rolling shutter image sensor array if the intensity of the ambient light is above the threshold light intensity.

25. An apparatus as claimed claim **23**, wherein the processor is configured to determine a distance of a focal point and to set the threshold light intensity using the determination.